



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/714,987      | 11/17/2003  | Yoshihiro Yazawa     | 1356-DIV-01         | 2265             |

35811 7590 03/14/2006

IP GROUP OF DLA PIPER RUDNICK GRAY CARY US LLP  
1650 MARKET ST  
SUITE 4900  
PHILADELPHIA, PA 19103

EXAMINER

MCNELIS, KATHLEEN A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1742

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/714,987

Applicant(s)

YAZAWA ET AL.

Examiner

Kathleen A. McNelis

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3,4 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4 and 14-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **Claims Status**

Claims 3, 4 and 14-21 remain for examination wherein claims 14-21 are new.

### **Status of Previous Rejections**

The previous rejection of claims 3 and 4 under 35 U.S.C. 103(a) are withdrawn in view of applicants' remarks. A new rejection ground follows.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

Art Unit: 1742

commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 4, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patents 675206, 1113084, or 930375 or U.S. Patents Kato et al. (6,113,710), or Sato et al. (5,110,544) in view of Kawanishi et al. (U.S. P.G. Pub. 2001/0005549).

EP ('206), ('084) and ('375), Kato et al. and Sato et al. are applied to claims 3 and 4 as stated in the September 30, 2005 office action. Further, with respect to claims 14 and 20, the nickel content is as follows:

- EP '206: Ni is preferably 0.01 to 1.0 wt% (p. 4 lines 50-53);
- EP '084, claim 3, Ni is 2.0% or less (p. 16);
- EP '375, claim 3, Ni not more than 1.0% by weight;
- Kato et al., claim 3, not more than 1.0%; and
- Sato et al., claim 1, not less than 0.1% and not more than 1.0%.

All of which are either the same as, within or overlapping the claimed range of between 0.2 to 2.0% in instant claims 14 and 20.

The vanadium content is as follows:

- EP '206: V is 0.05 to 0.3 wt% (p. 4 lines 55-58) which is the same as the range of between 0.05 to 0.3 wt% in instant claims 14 and 20;
- EP '084, claim 5 about 0.3% or less V (p. 16);
- EP '375, claim 1, 0.05 to 0.1% % (Nb+V) with V/Nb being from 2 to 5;
- Kato et al., claim 1, 0.05 to 0.1% % (Nb+V) with V/Nb being from 2 to 5; and
- Sato et al., not less than 0.05 and not more than 0.5%.

All of which are either the same as, within, or overlapping the claimed range of between 0.05 to 0.3 wt% in instant claims 14 and 20.

EP ('206), ('084) and ('375), Kato et al. and Sato et al. do not disclose bake coating the ferritic stainless steel sheet with a lubricant coat comprising an acrylic resin, calcium stearate and polyethylene wax in a coating amount of about 0.5 to 4.0 g/m.<sup>2</sup>

Kawanishi et al. discloses a lubricated steel material with lubricating film having good press formability, removability and blocking resistance as well as rust preventing properties (abstract), wherein the coating is applied to stainless steel sheets (§ 0001). The lubricant comprises acrylic resin (§ 0022) and one or more of a water repellant lubricant, selected from a group of 4 material groups including metal soaps and polyethylene fine powder (§ 0026), wherein calcium stearate is given as an example of a metal soap (§ 0028). Further, Kawanishi et al. discloses that the coating weight should be in the range of from 0.2 to 6.0 g/m<sup>2</sup>, preferably from 0.5 to 3.0 g/m<sup>2</sup> (§ 0043), where the preferred range of 0.5 to 3.0 g/m<sup>2</sup> is within the claimed range of from about 0.5 to 4.0 g/m.<sup>2</sup> The coating is applied wet then dried (i.e. baked) at a temperature of between 50 and 150 °C. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lubricant film as taught by Kawanishi et al. on the steel of EP ('206), ('084) and ('375) Kato et al. and Sato et al. to provide good press formability, removability and blocking resistance as taught by Kawanishi et al.

Claims 3, 4, 14, 15, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patents 675206, 1113084, or 930375 or U.S. Patent Kato et al. (6,113,710), in view of Kawanishi et al. (U.S. P.G. Pub. 2001/0005549).

EP ('206), ('084) and ('375) and Kato et al. in view of Kawanishi et al. are applied as described above regarding claims 3, 4 and 14 and 20. Further, with respect to new claims 15 and 18, the ridging heights are as follows:

Art Unit: 1742

- EP '206, Tables 2-1 and 2-2 (pages 10 and 11) all less than 50  $\mu\text{m}$ ;
- EP '084 Table 2 (page 11) all less than 50  $\mu\text{m}$ ;
- EP '375 and Kato et al, while ridging heights are not specifically listed, the steel is designed to be anti-ridging (abstract) and a correlation is provided between low ridging index (a function of ridging height) and the ratio of Ti/N, indicating that the ridging height is a result effective variable and would be optimized by one of ordinary skill in the art (see M.P.E.P 2144.05, II, B).

Claims 3, 4, 14, 16, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patents 675206, 1113084, or 930375, in view of Kawanishi et al. (U.S. P.G. Pub. 2001/0005549).

EP ('206), ('084) and ('375) in view of Kawanishi et al. are applied as described above regarding claims 3, 4 and 14 and 20. Further, with respect to new claims 16, 17 and 19, the r-values heights are as follows:

- EP '206 Tables 2-1 and 2-2 (pages 10 and 11) greater than 1.5;
- EP '804 Table 2, as high as 1.48, which is close to the claimed range of 1.5 or more. It has been well settled that where claimed ranges and prior art ranges do not overlap but lie close enough that one of ordinary skill in the art would expect the same properties to result, a prima facie case of obviousness exists (M.P.E.P § 2144.05); and
- EP '375, Table 2 (page 9) r of 1.5 and greater.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen A. McNelis whose telephone number is 571- 272-3554. The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ROY KING  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700